A. S. SKIFF.

Land-Roller.

No. 54,425. Patented May 1, 1866.

Fig. 1.

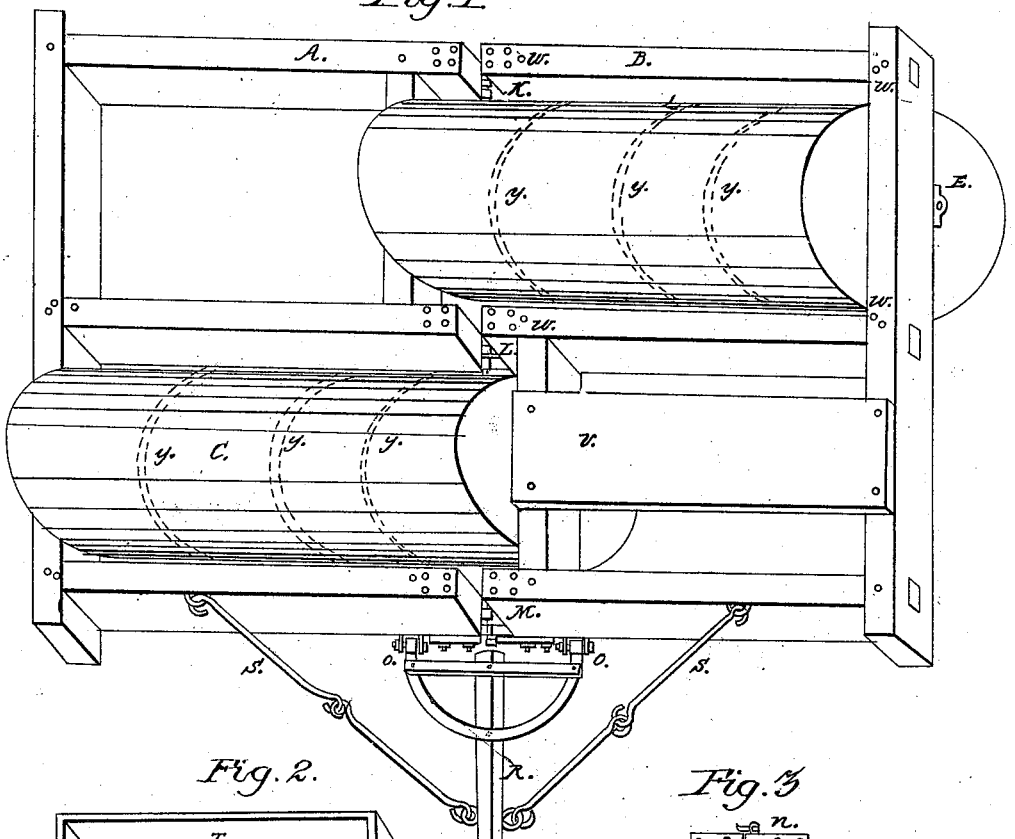


Fig. 2.

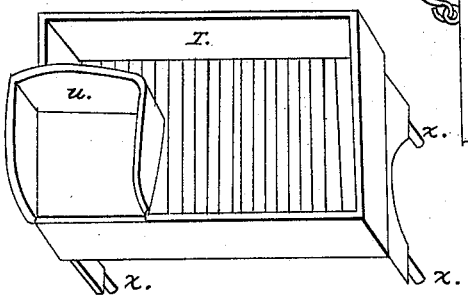


Fig. 3.

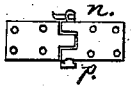
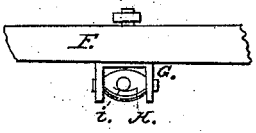


Fig. 4.



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UNITED STATES PATENT OFFICE.

ALBERT S. SKIFF, OF TRENTON FALLS, NEW YORK.

IMPROVEMENT IN LAND-ROLLERS.

Specification forming part of Letters Patent No. **54,425**, dated May 1, 1866.

To all whom it may concern:

Be it known that I, ALBERT S. SKIFF, of Trenton Falls, in the county of Oneida and State of New York, have invented a new and useful Improvement in Land-Rollers; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 presents a perspective view of a complete roller as when ready for use, except the seat for the driver and the movable boxes usually placed upon the top of the roller, these being left off in the drawings that the features of the roller may the more plainly be seen. Fig. 2 is one of those movable boxes with the driver's seat connected therewith; and Fig. 3 is a representation of the hinge by which the two sections of the roller are connected.

The nature of my invention consists in constructing the land-roller in two sections, the same being hinged together in the center, and each section containing a separate roller or section of rollers, and an axle, the two sections being so constructed and connected that either may rise to pass over any unevenness or obstruction on the surface of the ground, while the other retains its horizontal position. The land-roller is, moreover, so constructed and connected that it may be readily taken to pieces for more convenient transportation and again readily put together and prepared for use.

A and B, Fig. 1, are the two parts of the frame. The part A has its roller or section of rollers C, and the part B its section D. These rollers may be of wood or of iron, and of such size and weight as may be desired. They have nicely-fitted journals at the ends, with bearing-boxes for the same attached to the frame. Those of the outer ends, as at E, are of the ordinary kind; but the inside bearing-boxes are rocking boxes, being furnished with journals at the ends which turn in fixed staples or their equivalent, as shown in Fig. 4. F is a fragment of the frame; G, the staple, and H the bearing-box, with its seat *i* for the reception of the roller-journal. The bearing-box H is thus allowed a rolling movement to admit the elevation of the outer end of the roller without binding or injury to the journal and bearing.

The two sections of the roller-frame are hinged together by the hinges K L M, which are screwed to the under side of the opposing ends of the frame-timbers, the latter being separated an inch or two from each other to avoid interference. These hinges are represented in Fig. 3.

The pin *p* is made movable, and is secured in its seat by the key *n*, so that these pins, with the bolts O used in the attachment of the tongue R to the frame, being removed, and the chain S being unhooked, the two parts of the frame are separated, the rollers are detached, the tongue R removed, and all parts of the machine are ready to be boxed up or loaded upon a vehicle for transportation, the parts being readily replaced and the roller put together for use as before.

The portable box T, with the driver's seat U, Fig. 2, is designed to be set directly over the roller or section D, Fig. 1, so that the driver's feet shall rest on the board V. There are orifices W in the frame for the reception of the steady-pins X, Fig. 2, to keep the box in its place. A similar box, without the driver's seat, is to be placed over the roller C. These boxes are designed to receive additional weight for the roller when that is required, and they are also convenient for carrying to or from the field any articles whatever, as may be convenient.

The land-roller being thus constructed in sections, each having its own separate axle, while one is rising over an obstruction or any unevenness in the surface the other is not affected thereby, but still conforms independently to the surface of its own track. These rollers are so placed in their frames, as is shown by the drawings, that the roller D, Fig. 1, in the rear laps upon the track of the roller C, so that there is no space unrolled between them. They operate easier than a single roller of equal length, or several rollers and only one axle for all, and especially in turning about in the field, and they possess the decided convenience of being capable of separation into parts and made portable for transportation.

There may be one roller only, D and C, Fig. 1, in each section, or there may be two or more

rollers on each shaft, as indicated by the dotted lines *y*, all of those in the same section revolving on the same thorough-axle. The bearings of the roller-axles being the same as before described, the freedom of action is thus improved by the double facility of the axles revolving in their bearings, and each roller in the sections being also capable of revolving separately on the axle; or the roller-axles may be fixed, the outer ends thereof in the frame or some convenient attachment thereto, and the inner ends in the rocking bearing-box before described, and in this latter case the rollers only revolve on their axles.

The construction of the land-roller in sections, one section of the rollers being located in the frame in advance of the other, as above described, enables the whole of itself to maintain a horizontal position, as in the case of a wagon, and allows the tongue to be loose, working at a joint in its attachment to the roller-frame. This relieves the team from the burden of holding up the tongue and fore part of the machine by their necks, as is the case of the roller with one shaft now in use, and has several other advantages over the stiff tongue, where, as in the case of the cart, the tongue makes a part of the frame of the vehicle with rigid connection.

Having thus described my land-roller, with the construction and operation of the same, what I claim as my invention, and desire to secure by Letters Patent, is—

1. The construction of a land-roller in sections, one section in advance of the other, and the frame in sections connected by pivot-joints, and so arranged as that the bearings of the inner ends of the rollers are supported by the opposite frame, thereby allowing the ends of the rollers to lap, as and for the purposes described.

2. The use of the pivoted journal-box, in combination with the frame and roller-journal, as and for the purposes set forth.

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